HONDA

Accord

DESCRIPTION

The cruise control system is a combined unit of electronic circuits and vacuum operated mechanisims. Turn signal switch on steering column incorporates a slide switch which has 3 positions: "SET", "RESUME" and "ACCEL".

OPERATION

When driver presses and releases "SET/ACCEL" switch, vehicle speed will be maintanied until a new speed is set, brake or clutch pedal is depressed, or system is turned off. When system has been deactivated by depressing brake or clutch pedal, the driver can re-restablish set speed by pressing and releasing "RESUME" switch.

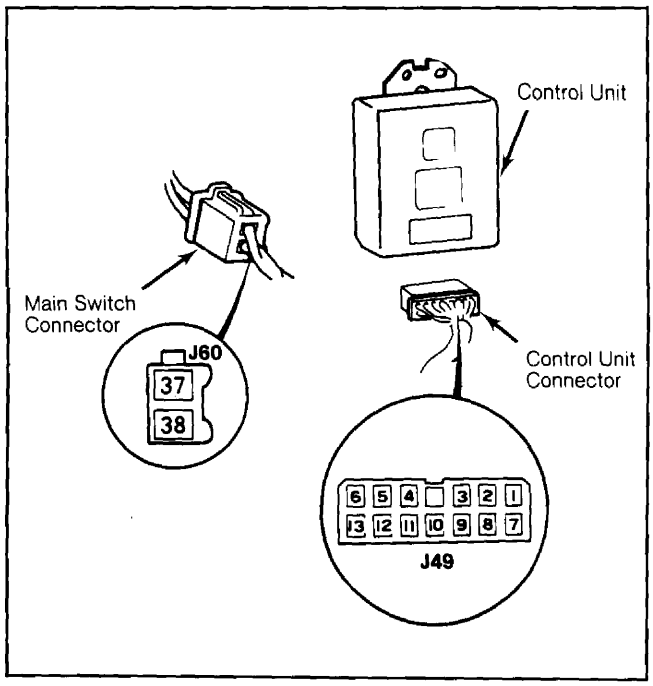
TROUBLE SHOOTING

ELECTRICAL

1) Turn on ignition and cruise control main switch. If pilot lamp lights, measure voltage across terminals 9 and 5 of control unit connector. If voltmeter reads 12 volts, control unit is okay. *See Fig. 1.*

2) If voltmeter read no voltage, measure voltage between terminal 5 and ground. If there is 12 volts, ground is defective. If there is no voltage, there is an open circuit in the wiring harness.

Fig. 1: Connectors and Terminal Numbers



Terminals are viewed from wire side.

3) If pilot lamp in step **1)** did not light, check fuse 15. If fuse is blown, replace it. If fuse is okay, measure voltage across terminals 31 and 33 of main switch connector. If there is no voltage, there is an open circuit in the wiring harness from fuse box to main switch.

4) If voltmeter in step **3)** indicated 12 volts, check for voltage between terminals B and C of main switch. If there there is no continuity, main switch is defective. If there is continuity, bulb is defective.

CONTROL SWITCH

1) Push the horn button. If horn doesn't blow, horn circuit is defective. If horn blows, turn on the ignition switch and main switch, and push "SET" switch. Connect the positive probe of the voltmeter to terminal 6 and negative probe to terminal 9 at control unit connector. *See Fig. 1.*

2) If there is no voltage, and horn doesn't blow, there is a short circuit in the wiring harness from control switch to control unit. If there is no voltage and horn blows, push the "SET" switch.

3) Connect the voltmeter positive probe to terminal 37, and the negative probe to ground. Read the voltage with the connector connected. If there is 12 volts, there is an open circuit in the wiring harness from slip ring to control unit.

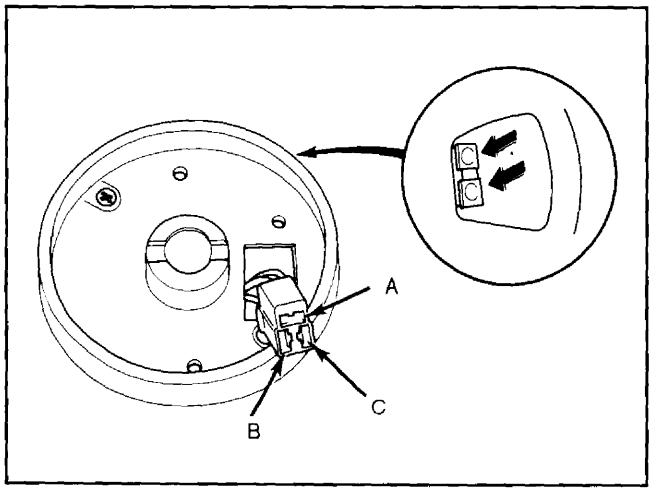
4) If in step **3)** there was no voltage, remove steering wheel and check "SET" switch. If "SET" switch is okay, slip ring is defective. If voltmeter reads 12 volts, push the "RESUME" switch. Connect the voltmeter positive probe to terminal 11 and negative probe to to terminal 9 of "RESUME" switch connector. *See Fig. 1.*

5) If there is no voltage, but horn blows, there is a short in the wiring harness from control switch to control unit. If there is no voltage and horn doesn't blow, push the "RESUME" switch. Connect the positive probe to terminal 38 and negative probe to ground on control unit connector.

6) If there is 12 volts, there is an open circuit in the wiring harness from slip ring to control unit. If there is no voltage, remove the steering wheel and check the "RESUME" switch. If switch is okay, slip ring is defective.

7) If in step **5)** voltmeter reads 12 volts, check for continuity across terminals 11 and 6 at "RESUME" switch connector. If there is no continuity, circuit is okay. If there is continuity, disconnect slip ring connector and check for continuity between terminals 37 and 38 of control switch connector.

Fig. 2: Control Switch Terminals and Continuity



8) If there is no continuity, wiring harness is shorted between slip ring and control unit. If there is continuity, check for continuity between terminals B and C

Cruise Control Systems

HONDA (Cont.)

of the control switch. *See Fig. 2.* If there is no continuity, slip ring is defective. If there is continuity, control switch is defective.

BRAKE SWITCH

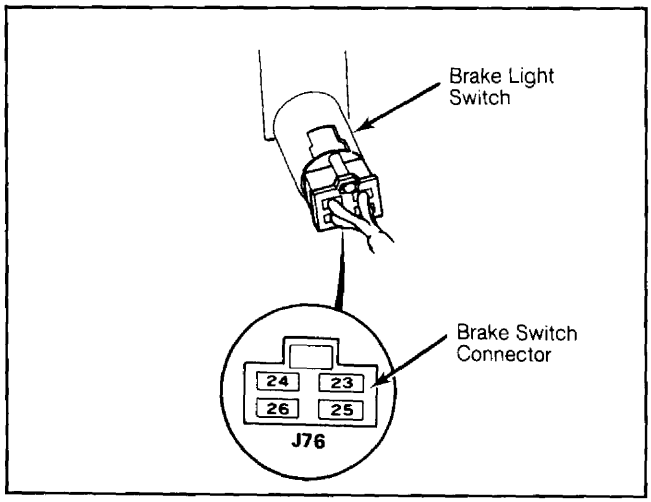
1) Turn on the ignition switch, the main switch, and apply brakes. If brake light doesn't go on, check the brake light switch. If switch is defective, replace. If switch is okay, brake light is defective.

2) If brake light goes on, connect the positive probe to terminal 12 of control unit connector and negative probe to terminal 9 with brakes applied. *See Fig. 1.* If there is no voltage, there is an open circuit in wiring harness.

3) If there is 12 volts, connect positive probe to terminal 8 and negative to terminal 9 of control unit connector. Apply and release brake pedal and measure voltage. With the brakes applied, there should be 12 volts. With brakes released, there should be no voltage.

4) If voltages test out okay in step **3)**, switch and circuits are okay. If not, connect positive probe to terminal 25 of brake light switch connector and negative to ground. *See Fig. 3.* Measure voltage. If there is no voltage, there is an open circuit in the wiring harness.

Fig. 3: Brake Light Switch and Connector



Connector is viewed from wire side.

5) If there is 12 volts, disconnect the brake switch connector and check for continuity between terminals A and B. With the brakes applied, there should be continuity. With brakes released there should be no continuity.

6) If continuity does not test out as specified, there is an open circuit in wiring harness from switch to control unit. If continuity tests out okay, remove and test the brake switch. Replace switch if defective.

CLUTCH SWITCH

1) Check continuity between terminals 4 and 9 of control unit connector. *See Fig. 1.* There should be continuity when clutch pedal is pressed in, and no continuity when it is released.

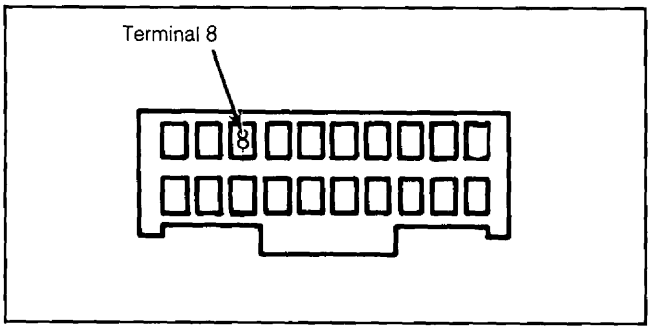
2) If switch does not test out as specified, disconnect the clutch switch connector and check continuity between terminals. There should be continuity when clutch is pushed in and no continuity when it is released.

3) If clutch switch continuity tests out okay, there is a broken wire between clutch switch and control unit. If clutch switch does not test out okay, remove and test clutch switch. Replace switch if defective.

PILOT LAMP

1) Turn ignition on. With a jumper wire connect terminals 2 and 9 in the control unit connector. *See Fig. 1.* If pilot lamp does not light, check for continuity between terminal 14 of control unit connector and terminal 8 of pilot lamp connector. *See Fig. 4.*

Fig. 4: Pilot Lamp Connector



2) If there is no continuity, there is an open circuit in the wiring harness between pilot lamp and control unit. If there is continuity, check bulb. If defective, replace. If bulb is okay, circuit board or control unit is defective.

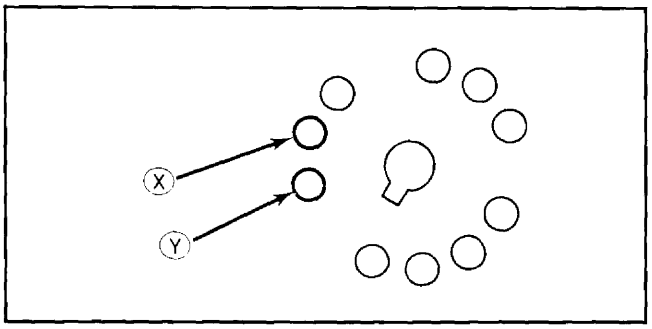
3) If lamp lights in step **1)**, turn on the main switch. If pilot lamp does not light, control unit is defective. If lamp lights, circuits are okay.

SPEED SENSOR

1) Disconnect the speedometer from transmission. Check for continuity between terminals 13 and 9 in control unit connector as speedometer is turned by hand. *See Fig. 1.*

2) Continuity should be indicated 4 times for each full turn of the cable. If continuity is not as specified, remove gauge assembly, and check for continuity between terminals X and Y as speedometer cable is turned. *See Fig. 5.*

Fig. 5: Speed Sensor Connector Terminal Locations



Connector is viewed from wire side.

3) Continuity should be indicated 4 times for each full turn of the cable. If okay, there is an open circuit in the wiring harness from gauge to control unit. If not okay, speed sensor is defective.

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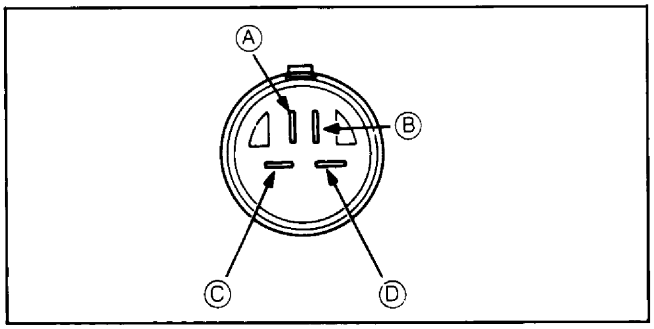
ACTUATOR

1) Measure the resistance between terminals 7 and 9 of control unit connector. *See Fig. 1.* Resistance should be 40-60 ohms. If not, disconnect the actuator connector and measure resistance between actuator terminals A and D. *See Fig. 6.* Resistance at actuator terminals A and D should be 40-60 ohms.

Fig. 6: Actuator Connector Terminals



2) If actuator resistance is not okay, actuator is defective. If okay, there is an open in the wiring harness from actuator to control unit. If first resistance measured in step **1)** was correct, measure the resistance between terminals 10 and 7 of actuator connector.

3) Resistance should be 30-50 ohms. If not, disconnect the actuator connector and measure resistance between terminals B and D. Resistance should be 30-50 ohms. If not, actuator is defective. If okay, there is an open circuit in wiring harness between actuator and control unit.

4) If first resistance measured in step **3)** was okay, measure resistance between terminals 3 and 7 of actuator connector. It should be 40-60 ohms. If not, disconnect actuator connector and measure resistance between terminals C and D.

5) Resistance should be 40-60 ohms. If not, actuator is defective. If okay, there is an open circuit in wiring harness from actuator to control unit. If first resistance measured in step **4)** was okay, disconnect the actuator cable from actuator.

6) Disconnect the actuator connector. Make sure the control unit connector is disconnected. Connect a lead from battery positive terminal to actuator terminal D and a lead from battery negative terminal to actuator terminals A, B and C. Connect a hand vacuum pump to actuator and draw vacuum.

7) If actuator is not pulled in or is pulled in part way, check the vacuum line for leaks. If line is defective, replace it. If line is okay, actuator is defective. If actuator is pulled in strongly, pull the actuator rod out by hand.

8) If the rod can be pulled out, actuator is defective. If it can not be pulled out, clean the vent tube and actuator filter, and disconnect the battery negative terminal from actuator terminals A and B. If actuator rod does not return, solenoid valve is defective.

TESTING

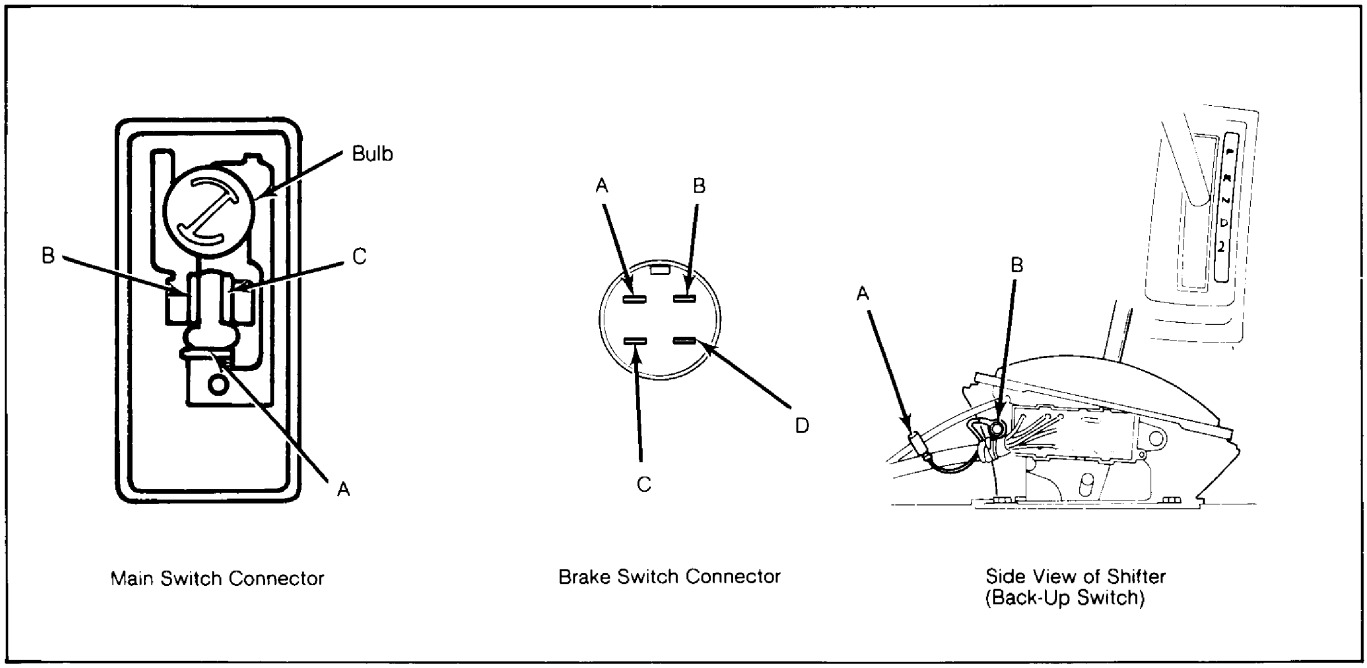
MAIN SWITCH

Use an ohmmeter to check resistance and continuity across main switch terminals. In both the on and off positions, there should be 20 ohms resistance between terminals A and B. In the on position, there should be continuity between terminals B and C. *See Fig. 7.*

BRAKE SWITCH

Use an ohmmeter to check continuity across brake switch terminals. In the on or pushed in position, there should be continuity between terminals A and D. In the off or free position, there should be continuity between terminals B and C. *See Fig. 7.*

Fig. 7: Main, Brake and Back-Up Switch Terminal Locations



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CLUTCH SWITCH

Check clutch switch continuity. With the rod pushed in, there should be continuity. Release the rod, and there should be no continuity.

NEUTRAL/BACK-UP SWITCH

Check switch for continuity. With the transmission in the Drive or Second gear position, there should be continuity between A and B terminals. In the Park, Reverse or Neutral positions, there should be no continuity. *See Fig. 7.*

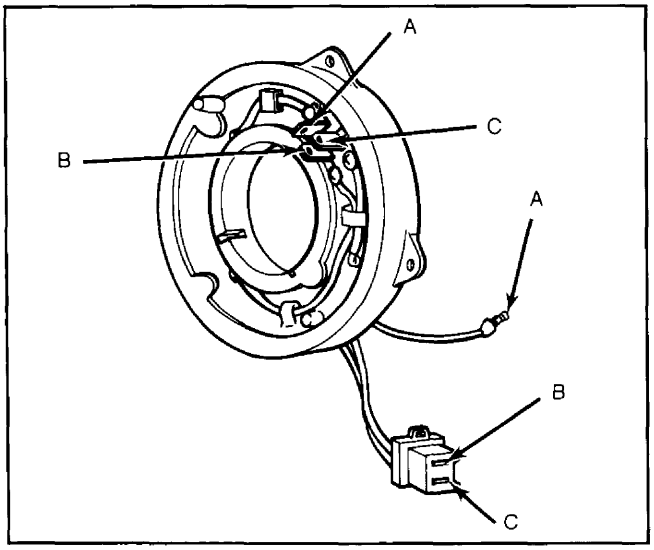
CONTROL SWITCH

Check control switch continuity. There should be continuity between terminals A and C when "SET" switch is in the on position, and continuity between terminals A and B with "RESUME" switch in on position. *See Fig. 2.*

SLIP RING

Turn the slip ring while checking for continuity between terminals with the same letters. *See Fig. 8.*

Fig. 8: Slip Ring Terminals



Test between terminals with same letters.

ACTUATOR SOLENOIDS

Measure resistance across actuator connector terminals. Resistance across A and D should be 40-60 ohms, across B and D should be 30-50 ohms, and across C and D should be 40-60 ohms. *See Fig. 6.*

ADJUSTMENTS

1) Measure brake pedal height. Pedal should be 7.36" (187 mm) from floor (with no floor mat). Screw the clutch switch in until the clutch pedal height matches the brake pedal height, and tighten lock nut.

2) Screw in the brake light switch slowly until the pad on the stop reaches the threads on the switch, and screw the switch in until the pedal has no play. Turn the switch counterclockwise 1/4-1/2 turn from this position, and tighten lock nut.

ACTUATOR CABLE

1) Warm up engine. Loosen the lock nut and cable. Adjust the throttle cable if necessary by loosening lock nut and adjusting nut until deflection is 3/16-3/8" (4-10 mm). Measure deflection with engine running, so that you can hear where free play ends.

2) To check free play in actuator rod, pull back boot and push the rod slowly until engine RPM begins to rise. Adjust the actuator rod free play by loosening lock nut and turning the adjusting nut. Free play should be adjusted to .25-.37" (6.5-9.5 mm).

3) Tighten lock nut and reinstall boot. Test drive vehicle and make sure cruise control maintains vehicle speed within 2 MPH of set speed.

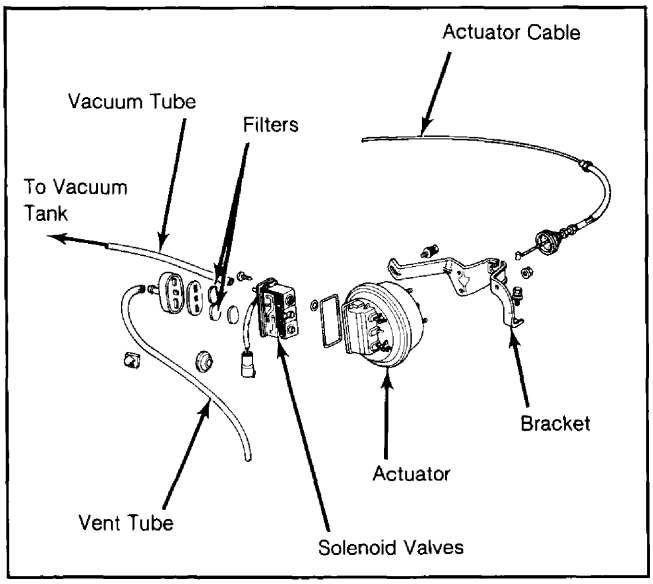
REMOVAL & INSTALLATION

ACTUATOR & CABLE

Removal & Installation

1) Pull back the boot on cable and loosen the lock nut. Disconnect the cable from the bracket. Disconnect the cable end from the actuator rod. Disconnect the actuator cable from the center arm. *See Fig. 9.*

Fig. 9: Exploded View Actuator Cable Assembly



Pull back boot to access lock nut.

2) Turn the grommet 90° in the firewall, and remove the cable. Disconnect the wire connector and vacuum tube. Remove the bolts, and remove actuator. To install, reverse removal procedure.

PEDAL BRACKET

Removal & Installation

1) Disconnect the actuator, throttle and clutch cables from pedal linkage. Drop the steering column by removing nuts from support brackets.

2) Remove the mounting nuts from the front of the pedal bracket. Remove the bolts from the top of the bracket and remove bracket. To install, reverse removal procedure.